

FIG. 1

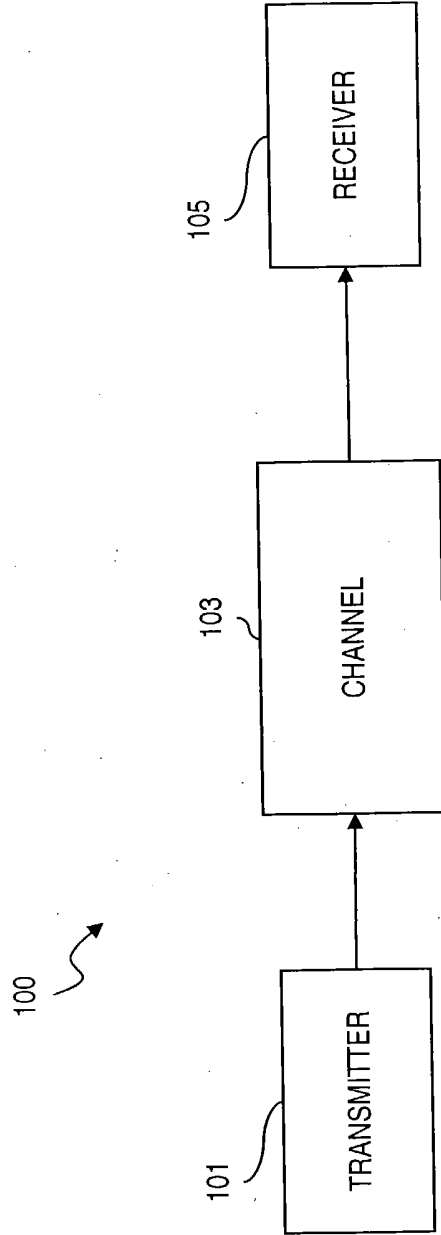


FIG. 2A

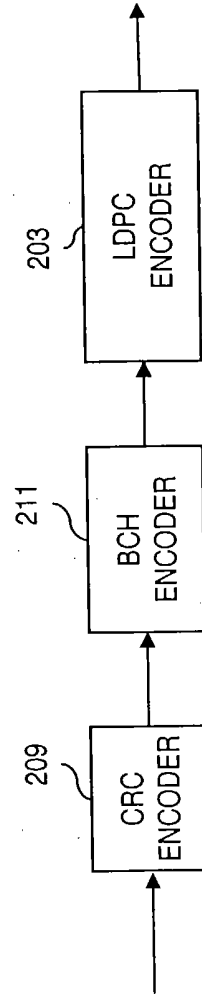
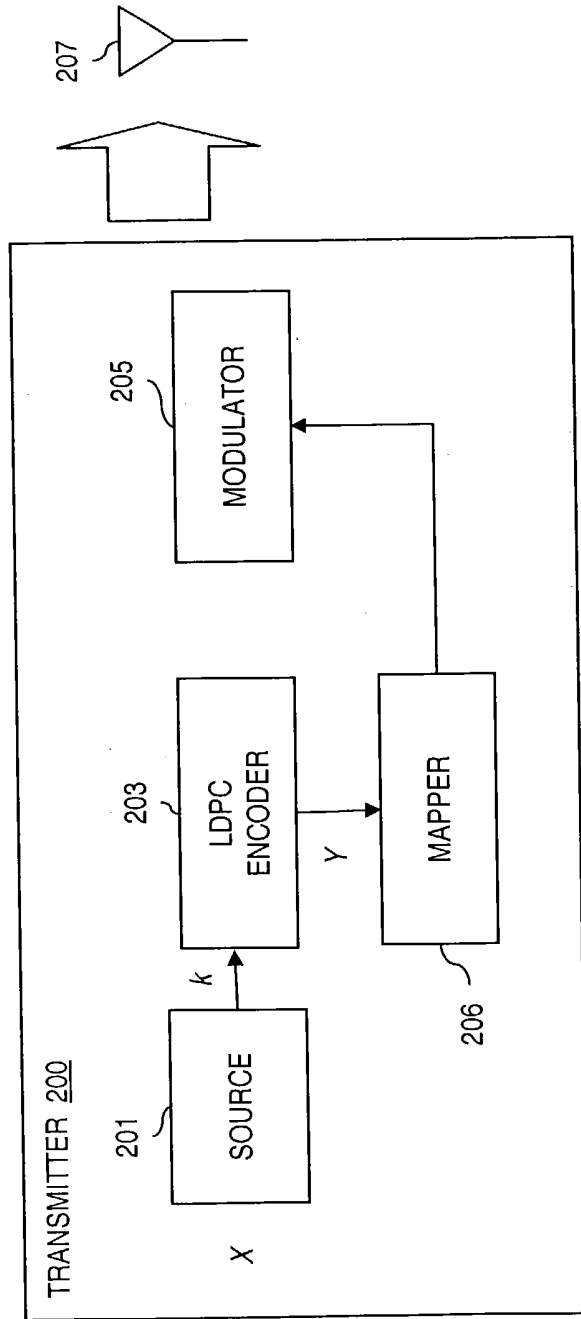


FIG. 2B

FIG. 3

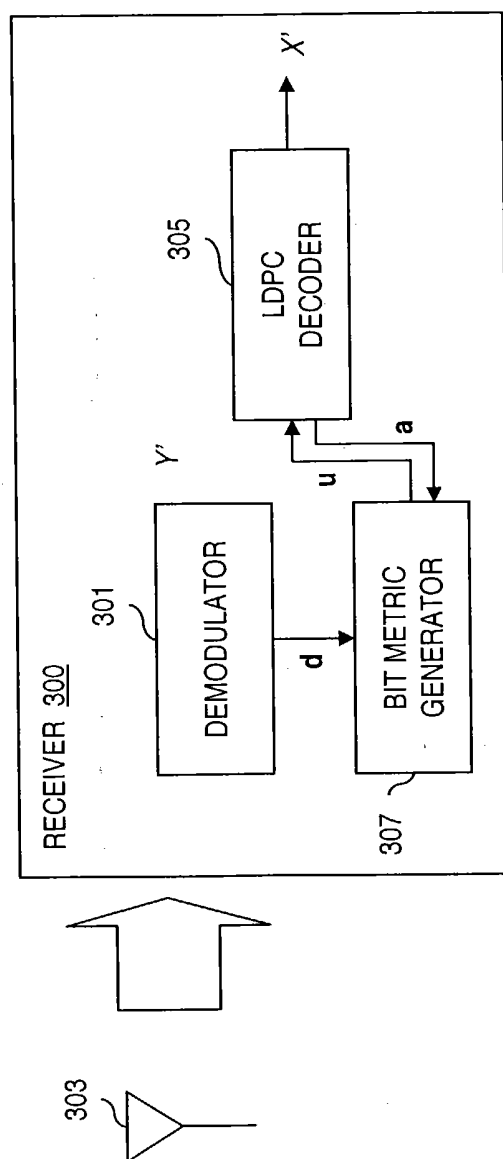
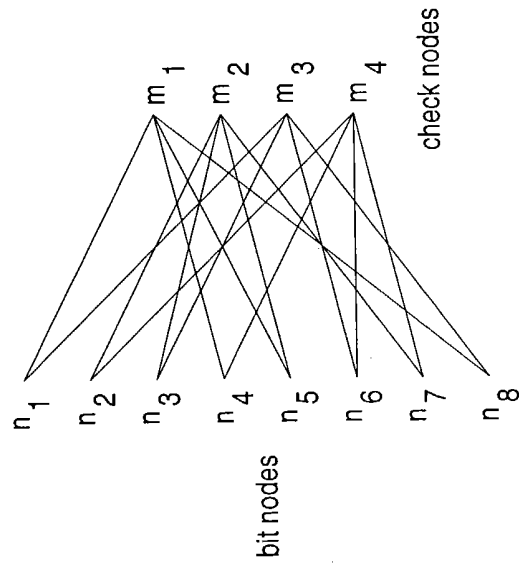


FIG. 4

$$H = \begin{bmatrix} n_1 & n_2 & n_3 & n_4 & n_5 & n_6 & n_7 & n_8 \\ 1 & 0 & 0 & 1 & 1 & 0 & 0 & 1 \\ 0 & 1 & 1 & 0 & 1 & 0 & 1 & 0 \\ 1 & 0 & 1 & 0 & 0 & 1 & 0 & 1 \\ 0 & 1 & 0 & 1 & 0 & 1 & 1 & 0 \end{bmatrix} \begin{matrix} m_1 \\ m_2 \\ m_3 \\ m_4 \end{matrix}$$

FIG. 5



$$B = \begin{bmatrix} 1 & & & & & & & \\ x & 1 & & & & & & \\ x & x & 1 & & & & & \\ x & x & x & 1 & & & & \\ x & x & x & x & 1 & & & \\ x & x & x & x & x & 1 & & \\ x & x & x & x & x & x & 1 & \end{bmatrix} \mathbf{0}$$

FIG. 6

FIG. 7

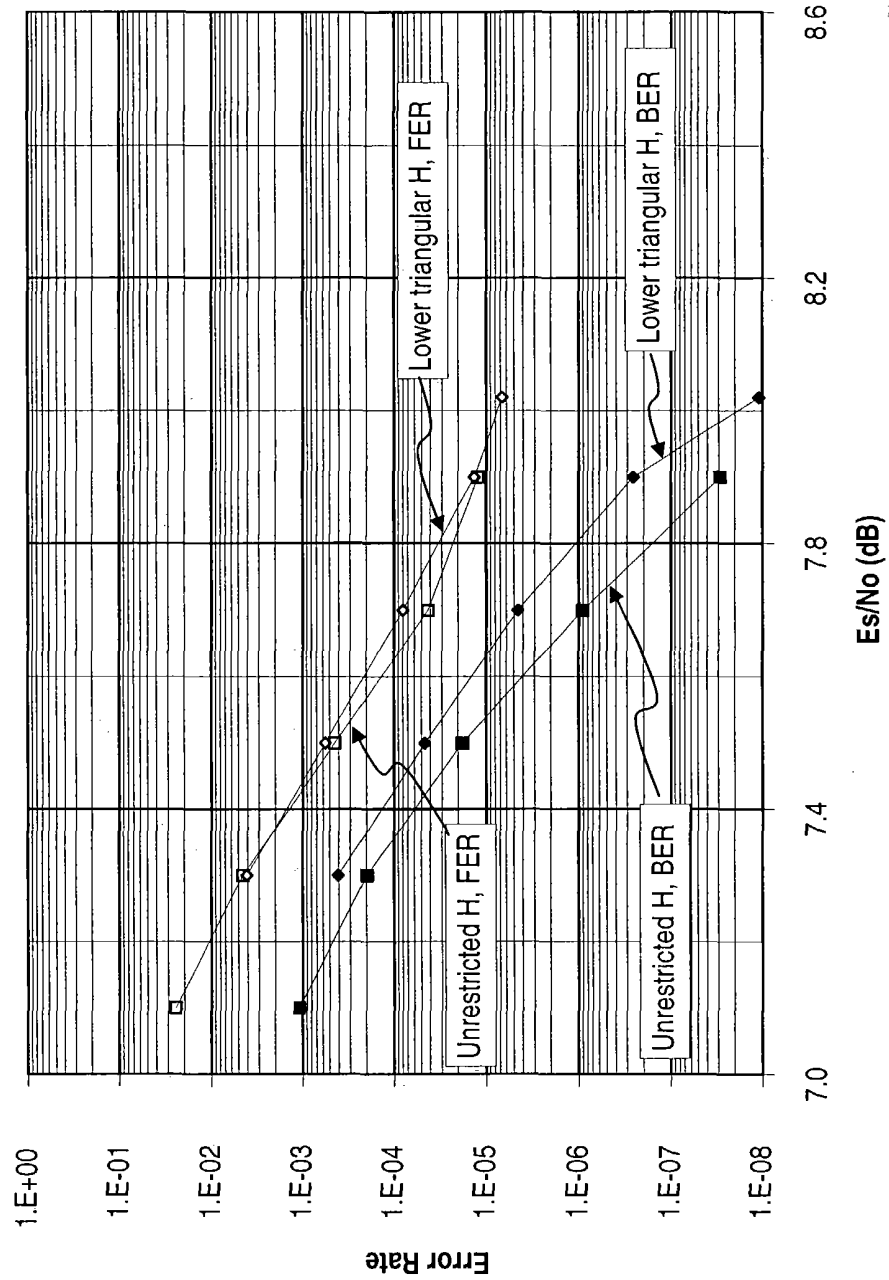


FIG. 8A

010
 \circ
 S_2 $S_1 \circ 001$
 $011 \circ S_3$ $S_0 \circ 000$
 $110 \circ S_6$ $S_5 \circ 101$
 $111 \circ S_7$ $S_4 \circ$
 100

010
 \circ
 S_5 $S_4 \circ 001$
 $011 \circ S_7$ $S_0 \circ 000$
 $111 \circ S_6$ $S_1 \circ 101$
 $110 \circ S_2$ $S_3 \circ$
 100

FIG. 8B

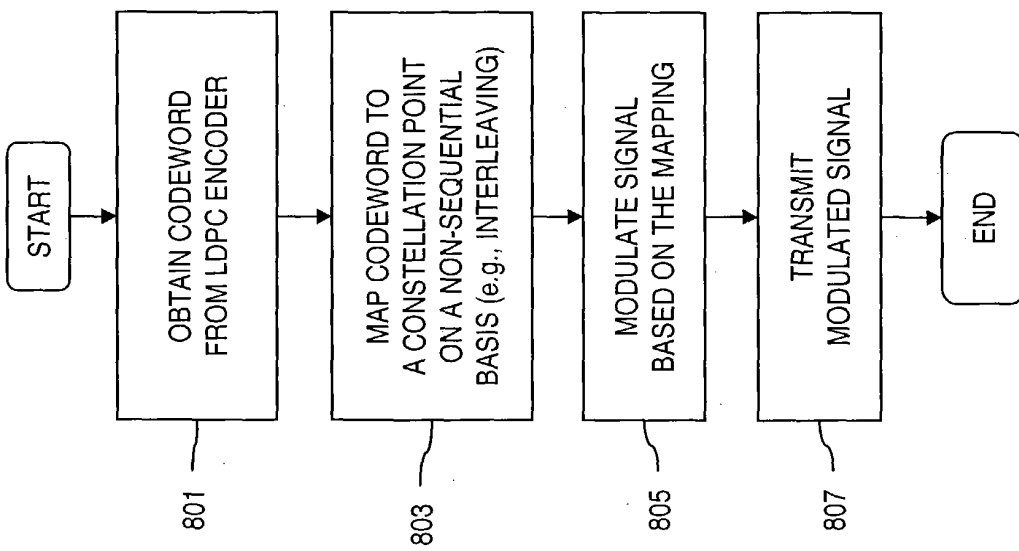
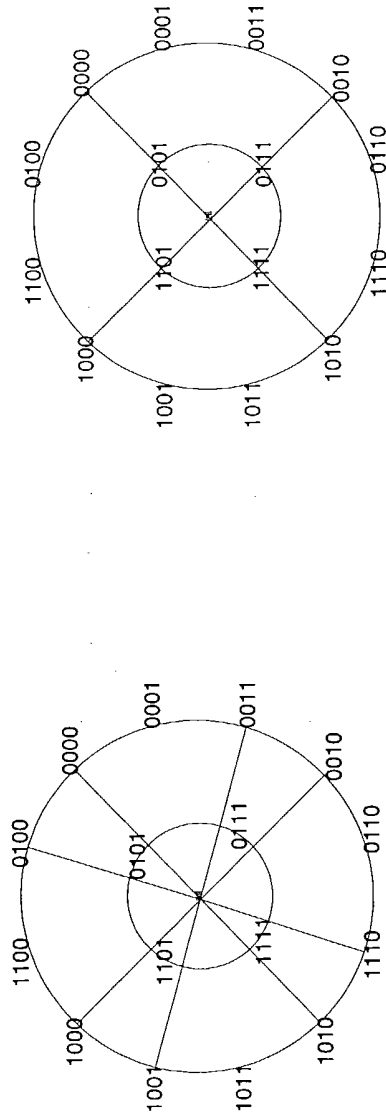


FIG. 8D



CONSTELLATION B

CONSTELLATION A

FIG. 8E

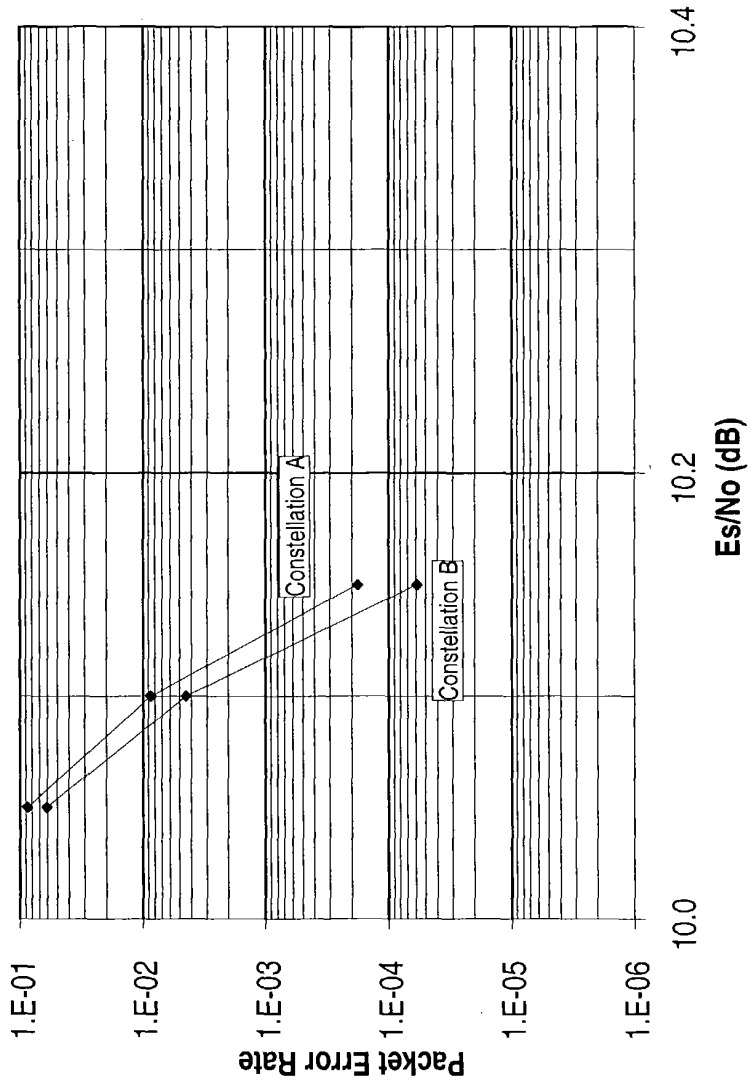


FIG. 8F

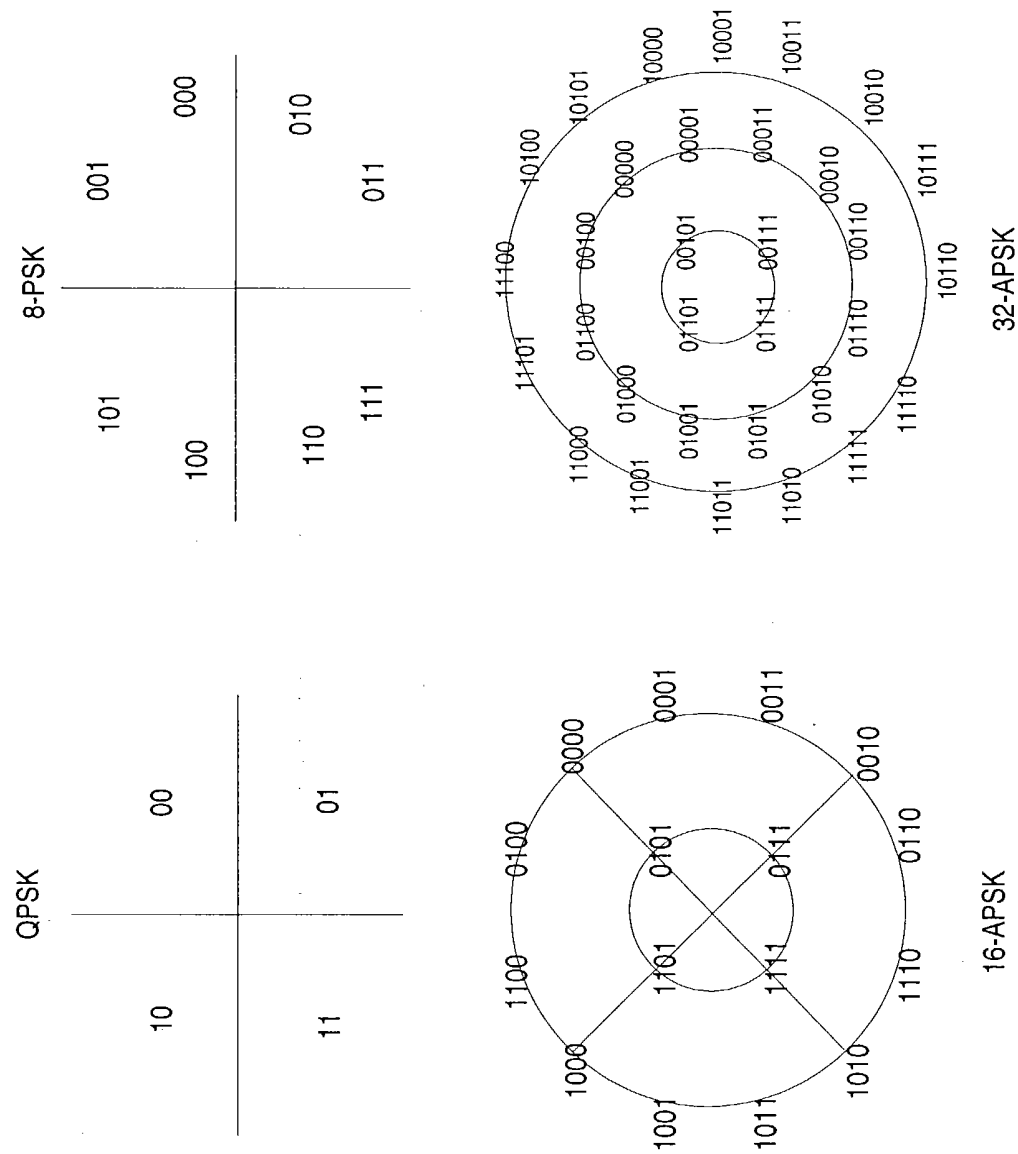


FIG. 8G

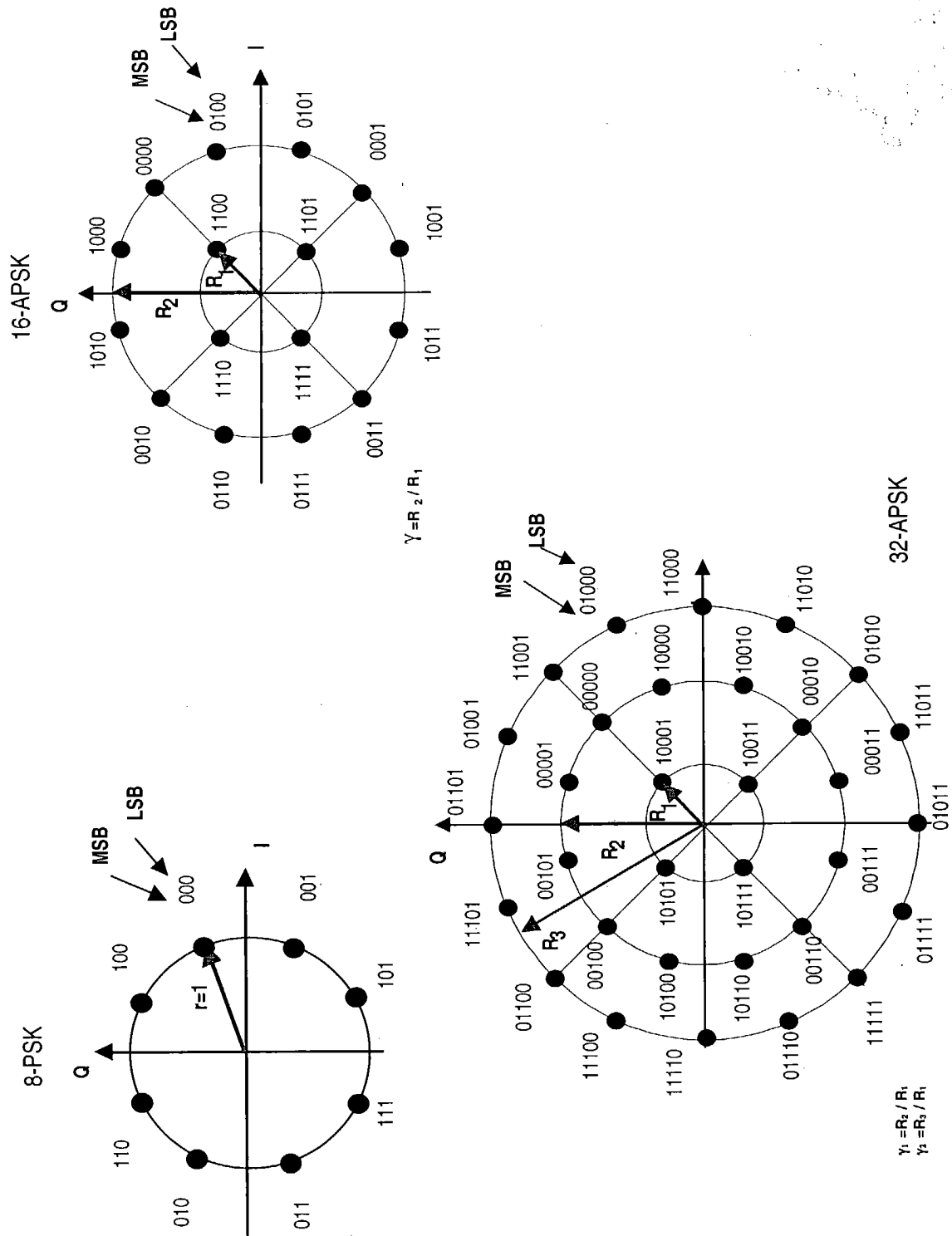


FIG. 8H

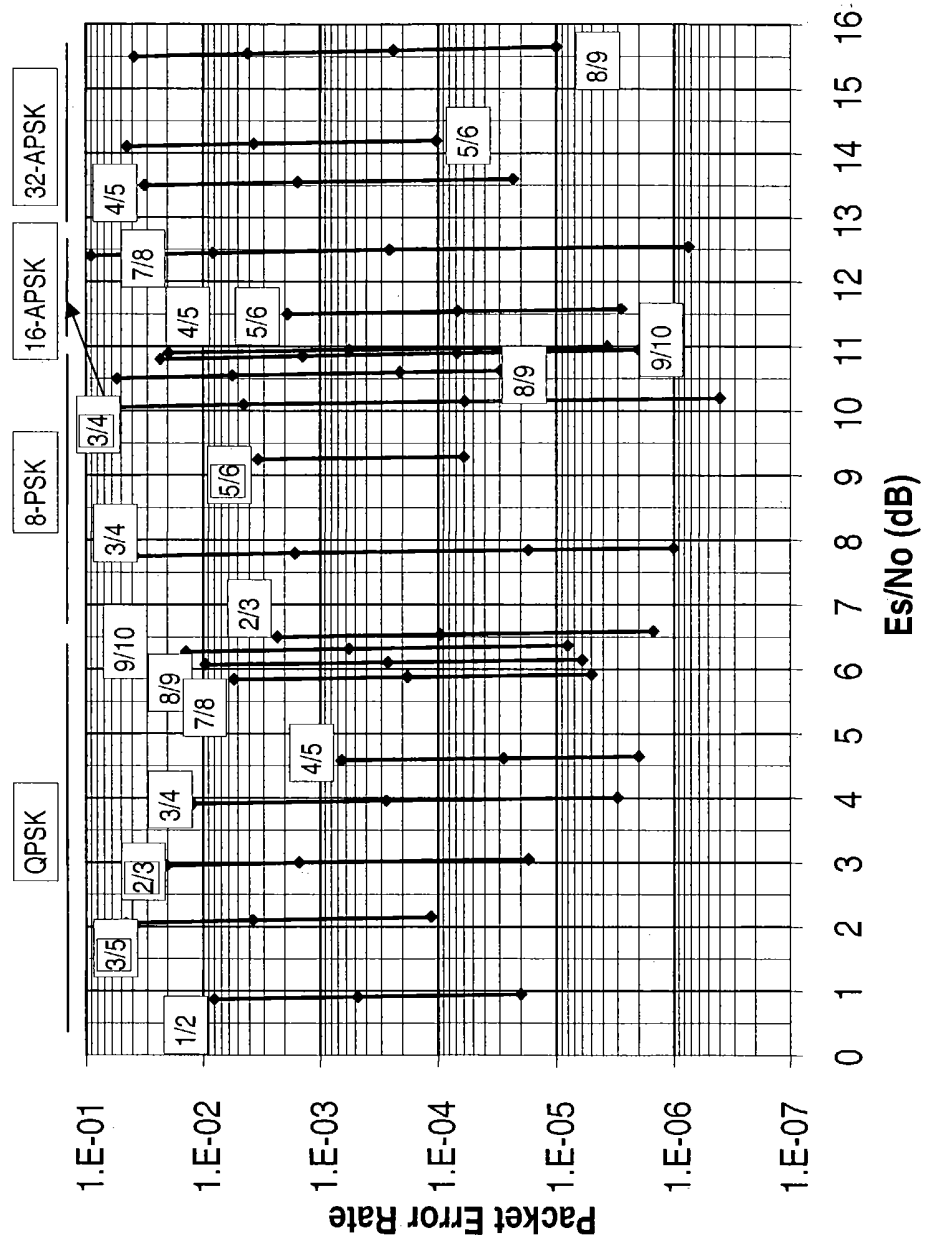
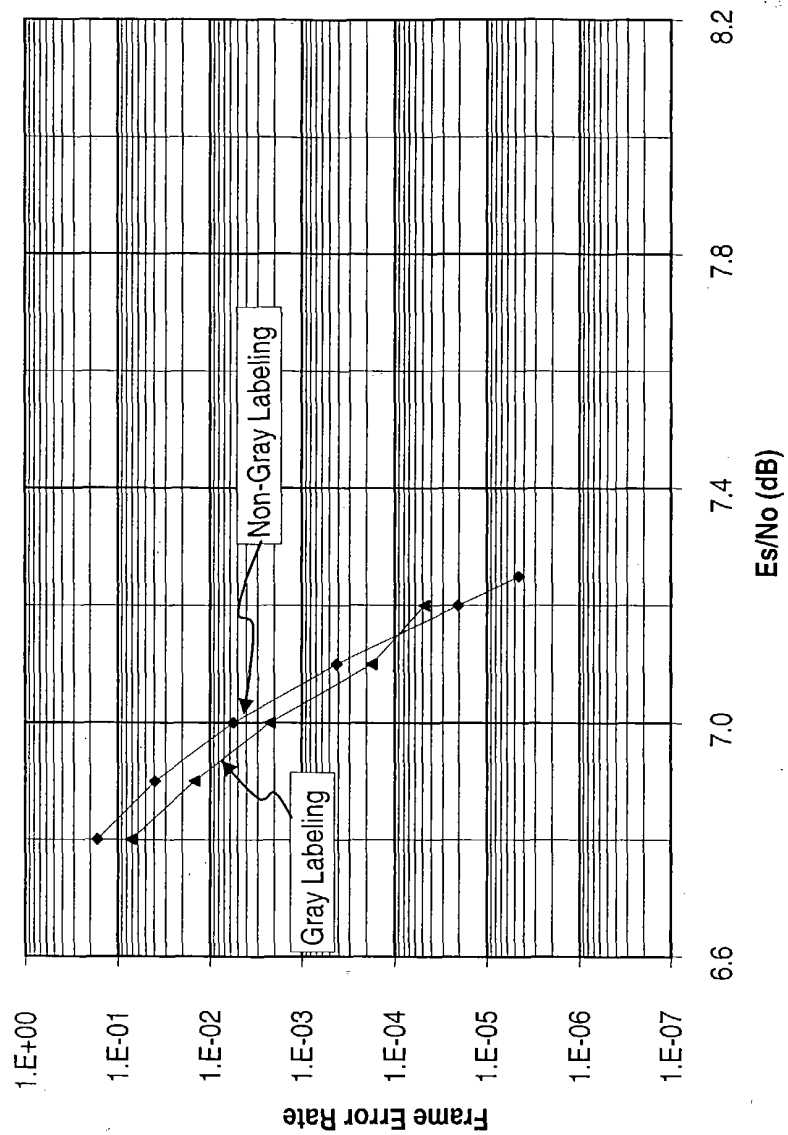
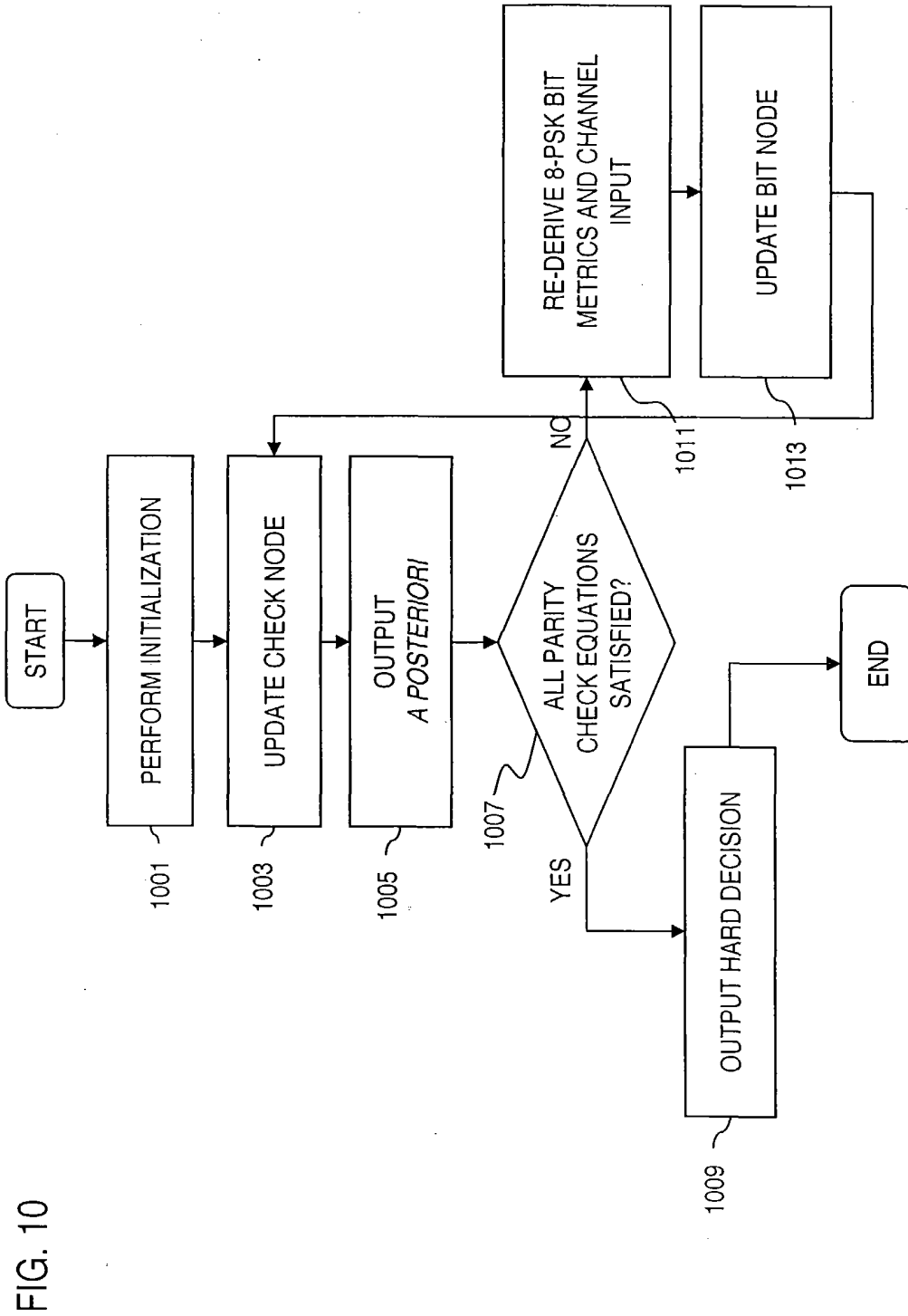


FIG. 9





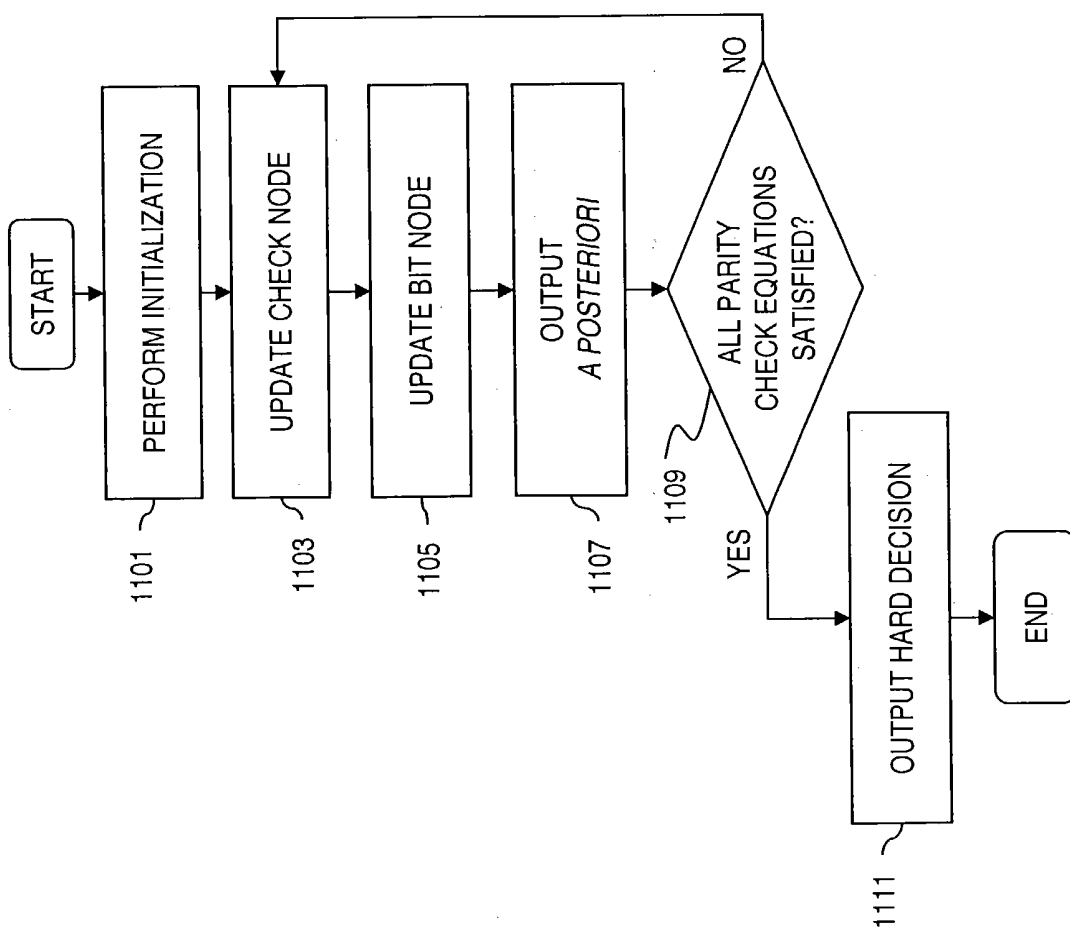


FIG. 12A

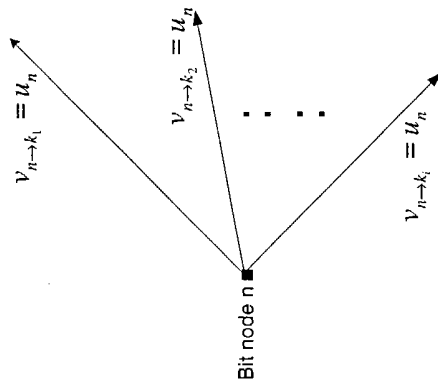


FIG. 12C

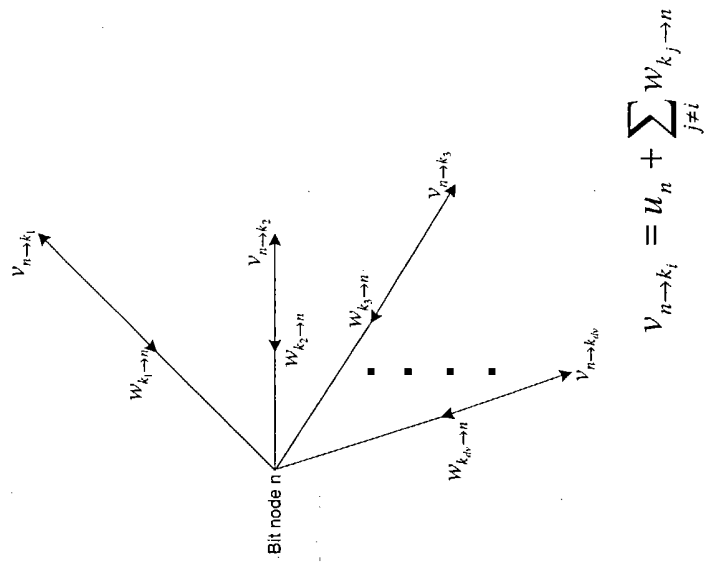


FIG. 12B

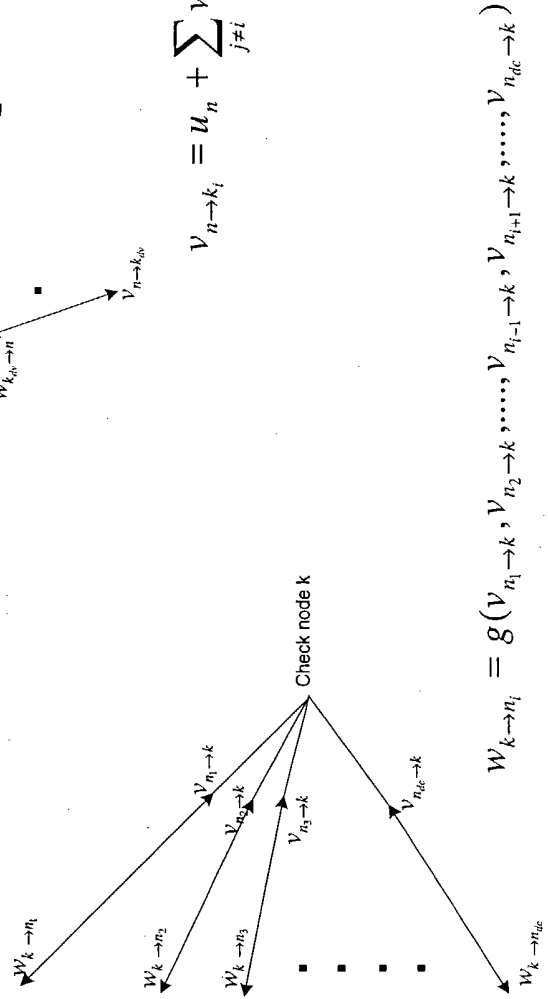


FIG. 13A

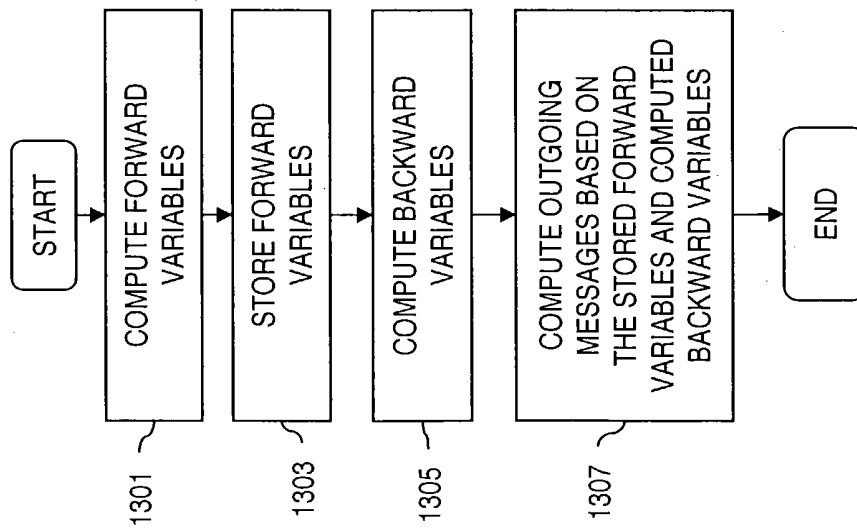


FIG. 13B

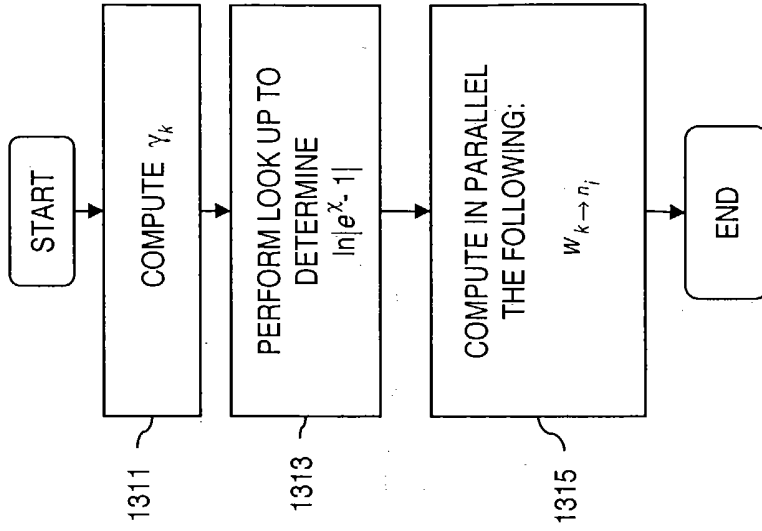


FIG. 14A

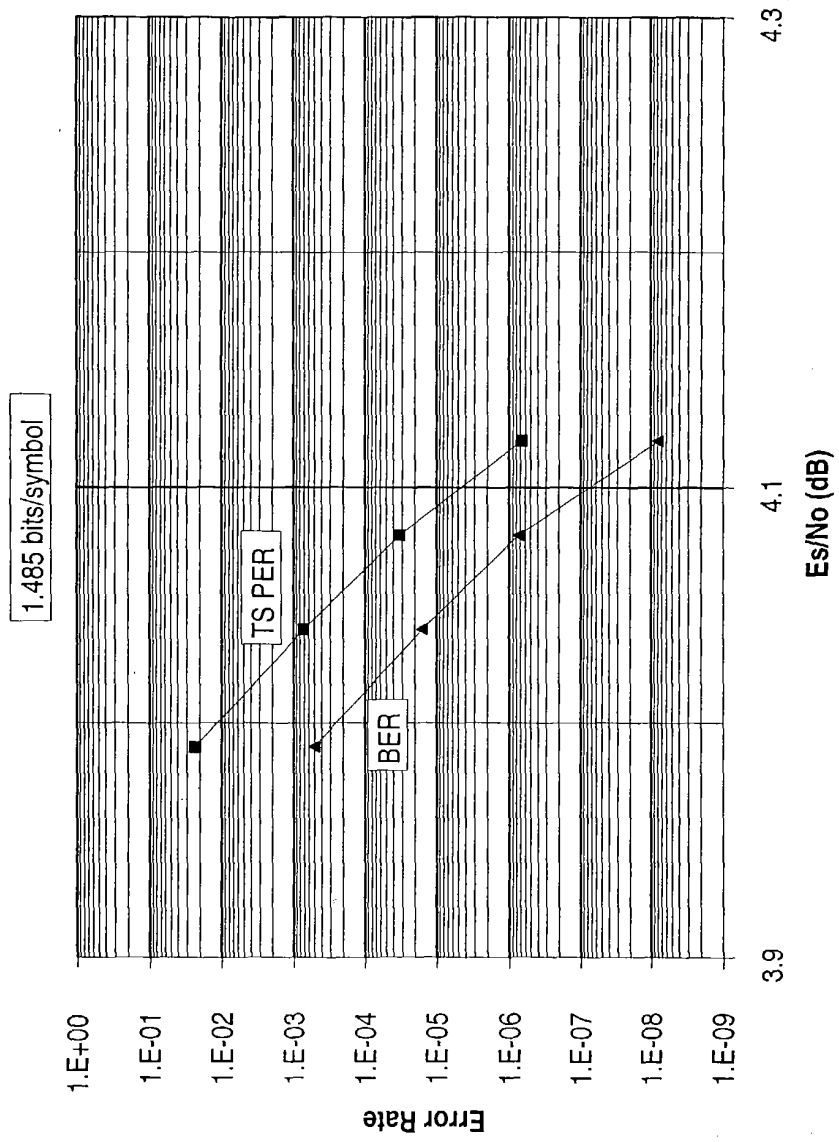


FIG. 14B

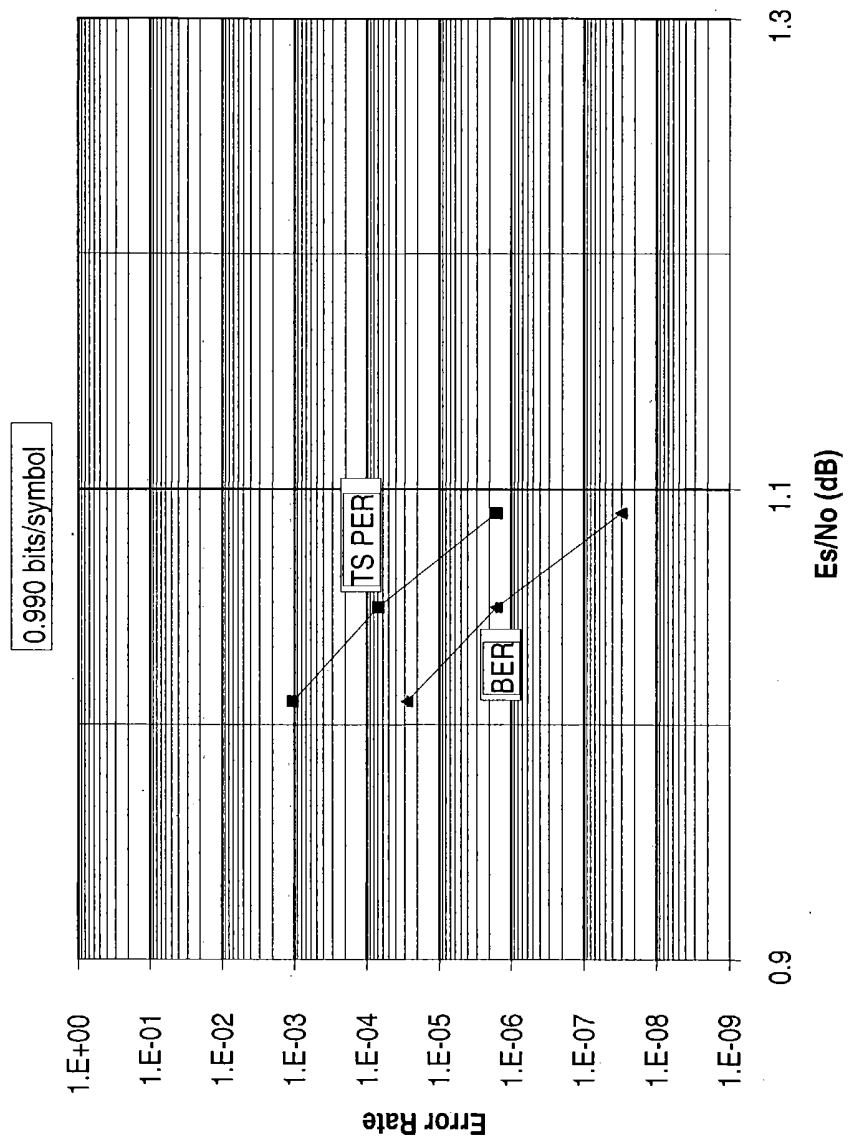


FIG. 14C

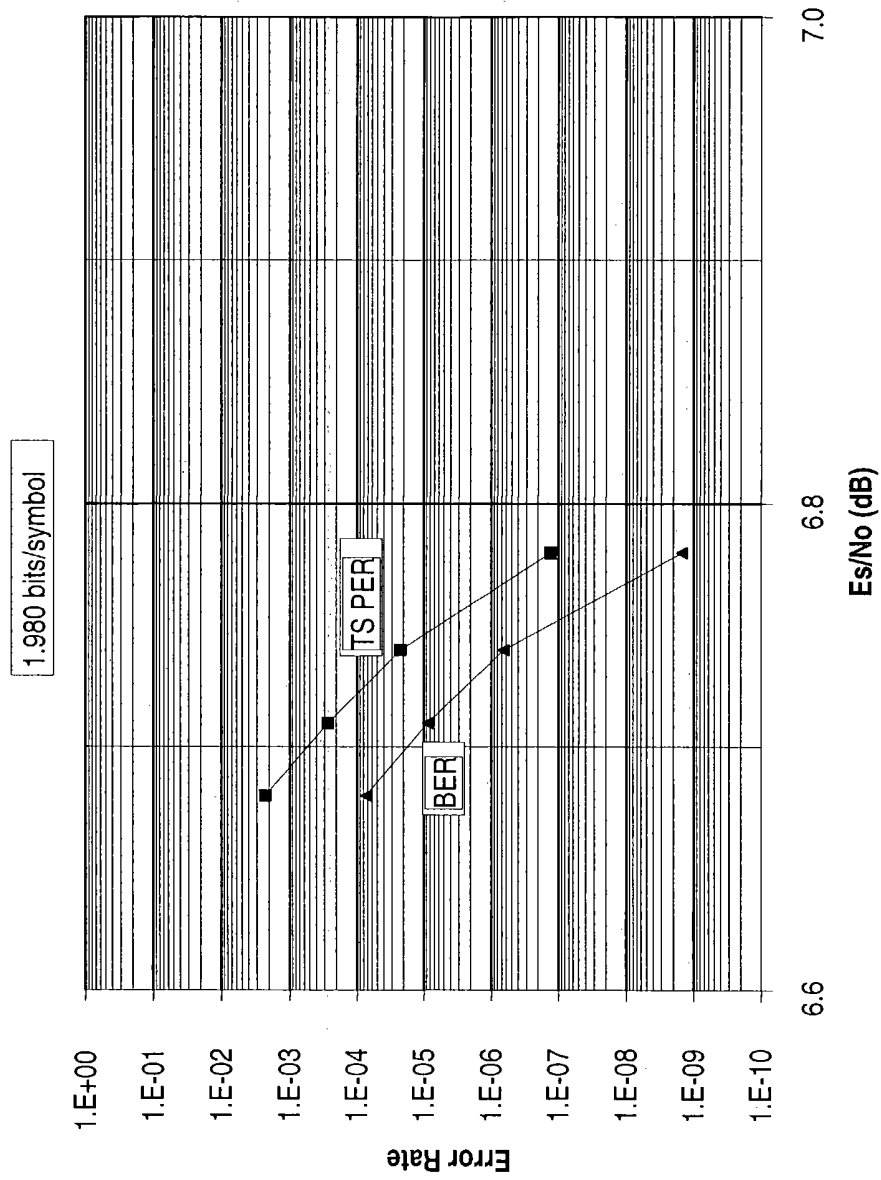
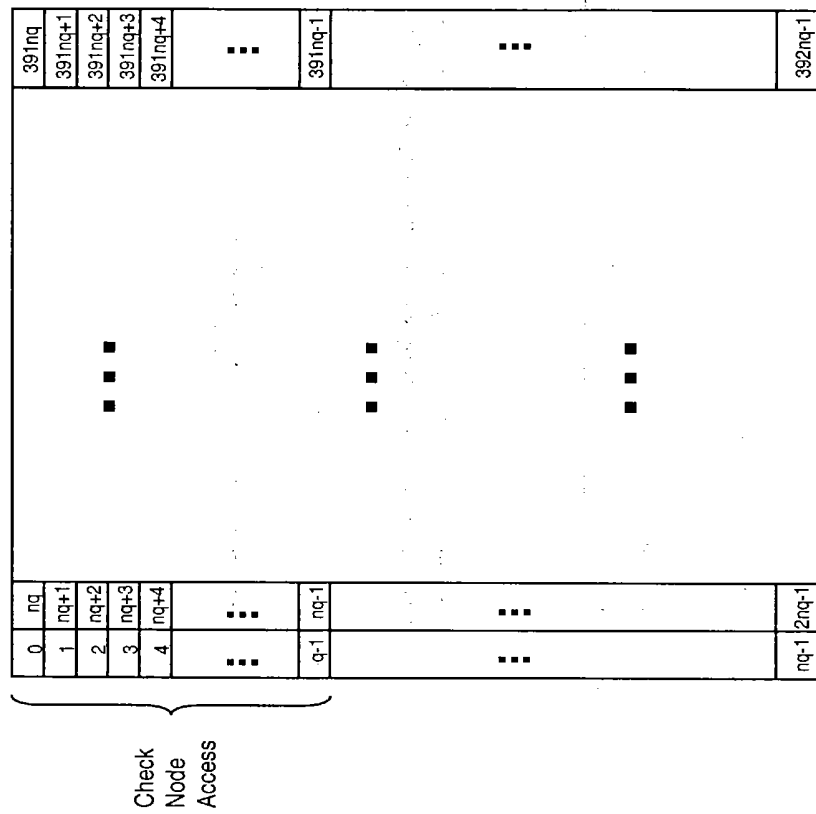


FIG. 15A



1501

FIG. 15B

